# Training Package Delivery and Student Study Outline for the Advanced Diploma of Network Security (ICA60211)

In July 2011 the new National Training Package for Information Technology (ICA11) was released. This replaced the previous Training Package version (ICA05). Qualifications are defined by industry choosing a combination of competencies required for certain job outcomes. Details of the new National Qualifications and the competencies can be found at [**training.gov.au**](http://training.gov.au).

In May 2012 the South Australian Government released details of new funding arrangements for VET qualifications. This funding includes eligibility requirements for receiving government subsidised training. Details of the new arrangements, known as Skills For All, can be found at [**www.skills.sa.gov.au**](http://www.skills.sa.gov.au).

TAFESA South Institute has responded to the new ICA11 Training Package requirements and South Australian Government funding arrangements and this document provides the details for the offerings in the Network Security related qualification.

There are a number of possible study plans with the recommended Advanced Diploma study plan having the following key features:

* The recommended study plan will take a new student with no previous networking experience 24 months to complete and will have a Certificate III in Information, Digital Media and Technology exit point after 6 months, a Certificate IV exit point after the first 12 months and a Diploma of Information Technology after 18 months.
* There is a security focus on **Microsoft Windows Server** and **Linux** network operating systems.
* There is an increased focus**,** on **virtualization, messaging** and **voice technologies**.
* A focus on the **Cisco CCNA Security** and **Aruba enterprise wireless** curriculum
* A **Major Project** focused on industry related projects is included in the Advanced Diploma of Network Security

For details of the competencies in each of the Networking qualifications and associated skill sets see pages 5 to 7.

Please follow the study plan guidance on the next page when choosing your personal study plan.

# Choosing a Diploma Study Plan

**This is an Optional Study Plan** **(21 Month Advanced Diploma)**  
I am interested in achieving the Diploma of Information Technology Networking (ICA50411) but:

* I have studied IT at school or have good basic understanding of IT
* I am NOT concerned with having early exit options such as the Certificate III.
* I want to achieve the Certificate IV in the first 9 months.
* I want to achieve the Diploma in 18 months

**This is a Recommended Study Plan (24 Month Advanced Diploma)**  
I am interested in achieving the Advanced Diploma of Network Security (ICA60211) but also:

* Achieving the Certificate III in the first 6 months.
* Achieving the Certificate IV in the first 12 months.
* Achieving the Diploma in 18 months

Using the subject descriptions, mark which ones you think you already know and make an appointment to discuss your personal study pathway via the contacts on Page 4.

Go to Page 4 for details of the subjects you will need to study in each Semester.

I am interested in achieving the Advanced Diploma of Network Security (ICA60211), but have prior experience or knowledge and/or I’m not sure what my study plan would be.

Go to Page 3 for details of the subjects you will need to study in each Semester.

**TAFESA Study Plan for Full-Time Students**

The following table shows the recommended study plan for the Advanced Diploma of Network Security with exit options and skills sets. Each stage is one Semester (or 6 months) in length for Full-Time students. Some subjects are taught in a term or part of a term, others go for the entire semester. The length of time for Part-Time students will depend on the number of subjects studied in each semester.

## Plan 1:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Stage 1 (Year 1) | | Stage 2 (Year 1) | | Stage 3 (Year 2) | | Stage 4 (Year 2) | |
| Semester 1 | | Semester 2 | | Semester 1 | | Semester 2 | |
| Term 1 | **Term 2** | **Term 1** | **Term 2** | **Term 1** | **Term 2** | **Term 1** | **Term 2** |
| 3ITE (9) 3PAC (9) 3WHS, 3CUD & 3SWP (1) | 3CDH(9)  3WSF(9) | 4WNI((9)  4LXA(9) | 4WAD(9)  5LXN (9) | 5CDR (9)  5ISV (9)  5EVC (9) | 5CDD (9)  5ECS (9) 5CNW(9) | 6CNSA (9)  6EWS (9) | 6CNSB (9) 6EWD (9) |
| 4IVM(12) | | 4CDB(18)  4CEP(18) | |  | | 6NPS (18)  6NCP (18) | |
| Skill Sets | | | | | | | |
| Gain the:   * *Hardware Technicians Skill Set* | | Gain the**:**   * ***Certified Networking Technician Skill Set*** * ***Certified Server Administrator Skill Set*** * ***Certified Technology Specialist - Graphical User Interfaces Skill Set*** * ***System and Network Plus Technician Skill Set*** | | Gain the**:**   * ***Virtualisation Specialist Skill Set*** * ***Certified Network Associate Technology Specialist Skill Set*** | |  | |
| Exit Qualifications | | | | | | | |
| Exit with the *Certificate III in Information, Digital Media and Technology* | | Exit with the ***Certificate IV in Information Technology Networking*** | | Exit with the ***Diploma of Information Technology Networking*** | | Exit with the ***Advanced Diploma of Network Security*** | |

**Please Note: This program structure is subject to change.**

**Legend:**

(n) The numbers highlighted in brackets e.g. (18) indicates the number of weeks the subject is delivered over.

^ These subjects are delivered in an external/online mode. Some other subjects maybe available in an external/online or blended delivery mode. Please check this with your lecturer at time of registration.

## Plan 2: ‘Fast track’

The following table shows the ‘fast track’ study plan for the Advanced Diploma of Network Security with exit options and skills sets. This option is recommended for those who have studied IT at school or have a good basic understanding of IT. Some subjects are taught in a term or part of a term, others go for the entire semester. The length of time for Part-Time students will depend on the number of subjects studied in each semester.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Stage 1 (Year 1) | | Stage 2 (Year 1) | | | Stage 3 (Year 2) | | Stage 4 (Year 2) | | |
| Semester 1 | | Semester 2 | | | Semester 1 | | Semester 2 | | |
| Term 1 | **Term 2** | **Term 1** | | **Term 2** | **Term 1** | **Term 2** | **Term 1** | **Term 2** | |
| 3CDH(9)  3WSF(9) 4IVM(12) 3WHS (1) | 4WNI((9)  4LXA(9)  4CDB(9) | 4WAD(9) 5LXN(9)  4CEP(9) | | 5CDR (9)  5CNW (9)  5ECS (9) | 5CDD (9)  5EVC (9)  5ISV(9) | 6CNSA (9)  6EWS (9) 6NPS (9) | 6CNSB (9) 6EWD (9) 6NCP (9) |  | |
|  |  | | |  | |  | |
| Skill Sets | | | | | | | | | |
| Gain the:   * *Certified Networking Technician Skill Set* * *Certified Server Administrator Skill Set* * *Certified Technology Specialist - Graphical User Interfaces Skill Set* * *System and Network Plus Technician Skill Set* | | | | Gain the**:**   * ***Virtualisation Specialist Skill Set*** * ***Certified Network Associate Technology Specialist Skill Set*** | |  | | |  |
| Exit Qualifications | | | | | | | | | |
| Exit with the *Certificate IV in Information Technology Networking* | | | Exit with the ***Diploma of Information Technology Networking*** | | | Exit with the ***Advanced Diploma of Network Security*** | |  | |

**Please Note: This program structure is subject to change.**

**Legend:**

(n) The numbers highlighted in brackets e.g. (18) indicates the number of weeks the subject is delivered over.

^ These subjects are delivered in an external/online mode. Some other subjects maybe available in an external/online or blended delivery mode. Please check this with your lecturer at time of registration.

## Further Information:

|  |  |
| --- | --- |
| **Address:**    **Telephone:**  **Fax:**  **Email:** | Information Technology & Library Studies  Level 2 (South), 120 Currie Street  Adelaide SA 5000  (08) 8207 8350  (08) 8207 8291  it.studies@tafesa.edu.au |
| CRICOS Provider Name: Department of Further Education,  Employment, Science and Technology trading as TAFE SA | CRICOS No: 00092 | |

**Training Package Delivery and Student Study Outline for the   
Advanced Diploma of Network Security (ICA60211)**

To receive the Award students need to complete the following subjects

This is not an entry level course. There is a large amount of assumed skills and knowledge prior to commence this course. To successfully enter at this level a student needs to have either:

* Completed the Diploma of Information Technology Networking, or
* University course in Information Technology
* Other study equivalent to it, or
* Have extensive work experience and knowledge equivalent to it.

Please note the pre-requisites and ensure you have the required skill, knowledge or vendor certification to commence the subject.

|  |  |  |  |
| --- | --- | --- | --- |
| Subject | National  Code | Competency Name | Pre-  Requisite |
| 6CNSA | **Cisco Network Security (Part A)** | | |
| ICANWK602A | Plan, configure and test advanced server based security | Four Cisco Networking Academy CCNA semesters |
| 6CNSB | **Cisco Network Security (Part B)** | | |
| ICANWK601A | Design and implement a security system | Four Cisco Networking Academy CCNA semesters |
| 6NPS | **Network Perimeter Security** | | |
| ICANWK509A | Design and implement a security perimeter for ICT networks | 4WAD, 4WNI, MS 70-640 and 642, or proof of equivalent knowledge |
| 6EWD | **Enterprise Wireless Design** | | |
| ICANWK605A | Design and configure secure integrated wireless systems | 5CDD, Cisco CCNA or equivalent knowledge, 4WNI |
| ICANWK502A | Implement security encryption technologies |
| ICAICT609A | Lead the evaluation and implementation of current industry-specific technologies |
| 6EWS | **Enterprise Wireless Security** | | |
| ICANWK607A | Design and implement wireless network security | 5CDD Cisco CCNA or equivalent knowledge, 4WNI |
| 6NCP | **Network Capstone Project** | | |
| ICTSUS6233A | Integrate sustainability in ICT planning and design projects | 6CNS (A&B)  6NPS 6EWD |
| ICTSUS6234A | Establish a business case for sustainability and competitive advantage in ICT projects |
| ICTPMG8143A | Manage a telecommunications project |

Student must also select two (2) subjects from the Diploma Networking list below as an additional elective.

|  |  |  |  |
| --- | --- | --- | --- |
| Subject | National  Code | Competency Name | Pre-  Requisite |
| 5CNW | **Complex Networks** | | |
| ICANWK529A | Install and manage complex ICT networks | 4WAD  4WNI, MS 70-640 and 642, or proof of equivalent knowledge |
| 5ISV | **Implement Server Virtualisation** | | |
| ICTSUS5187A | Implement server virtualisation for a sustainable ICT system | 4WAD  4WNI, MS 70-640 and 642, or proof of equivalent knowledge |
| 5EVC | **Enterprise Virtual Computing** | | |
| ICANWK525A | Configure an enterprise virtual computing environment | 4IVM, 4WAD MS 70-640 or proof of equivalent knowledge |
| ICANWK526A | Install an enterprise virtual computing environment |
| ICANWK527A | Manage an enterprise virtual computing environment |

## Subject Descriptions

|  |  |
| --- | --- |
| Subject | Description |
| 6CNS  (Parts A & B) | This subject covers the Cisco Networking Academy CCNA Security subject which provides a next step for individuals who want to enhance their CCNA-level skill set and help meet the growing demand for network security professionals. The curriculum provides an introduction to the core security concepts and skills needed for the installation, troubleshooting, and monitoring of network devices to maintain the integrity, confidentiality, and availability of data and devices. |
| 6NPS | This subject introduces students to security using the Microsoft Forefront Threat Management Gateway 2010 (TMG). Students will configure security rules that will protect users from Web-based threats by integrating multiple layers of security. Students will configure rules that inspect web traffic at the network, application and content layers to help ensure comprehensive protection. |
| 6EWD | This subject will introduce students to the skills and knowledge which covers WLAN discovery techniques, Wireless Intrusions Systems, Enterprise/SMB/SOHO/Public-Network Security design models, coverage of all 802.1X/EAP types used in WLANs, 802.11 design architectures. This subject will provide hands on approach using enterprise wireless equipment. |
| 6EWS | This subject will introduce students to the skills and knowledge required to mitigate security threats to a wireless local area network (WLAN) by implementing security standards and policies |
| 6NCP | This project will provide students with an opportunity to put into practice the skills and knowledge they have obtained during their studies in the Advanced Diploma. |

## Subject Descriptions

|  |  |
| --- | --- |
| Subject | Description |
| 5EVC | In this subject students will explore installation, configuration, and management of VMware vSphere, which consists of VMware ESXi and VMware vCenter Server. |
| 5ISV | This subject will introduce students to the skills and knowledge required to install and integrate a virtual server in a network to replace physical servers |
| 5CNW | This subject will introduce students to the skills and knowledge required to install and manage enterprise-wide information and communications technology networks, including Voice over IP (VoIP). |